

AL POLLUTION PREVENTION QUARTERLY/ANNUAL REPORT

The purpose of this report is intended to track and acknowledge the sites' considerable efforts to be conscientious environmental and fiscal stewards. It is intended to encourage sites to share information on successful P2 activities to ensure integrated and cost effective AL P2 efforts and inform management of significant P2 activities.

This is the second publication of the *AL Pollution Prevention (P2) Quarterly Report*. It includes AL P2 activities and accomplishments as reported in the EM-22 P2 accomplishment database for the 4th quarter FY99 as well as an annual summary for FY99 P2 accomplishments. This quarterly is now reflecting fiscal year reporting rather than calendar year reporting.

New AL P2 Strategic Plan

The draft 1999 *AL P2 Strategic Plan* describes the AL P2 Program and establishes program implementation goals and strategies. The plan's basis is P2 program infrastructure, accountability and improvement. Successful plan implementation will include site-level, self-motivating (and, ideally, self-sustaining) P2 programs and compliance with national P2 goals, executive orders, and other drivers. The plan will be in final review by the end of the 1st quarter FY00 and will be linked to the new, online website in February 2000.

1999 P2 Conference

The 1999 DOE National Pollution Prevention Conference was held in Albuquerque, NM, November 15 through November 19, 1999. It was hosted by the AL National P2 Program, Sandia National Laboratories/New Mexico, Los Alamos National Laboratory, and the Waste-management Education and Research Consortium. The theme of the conference was "Moving Toward a Pollution Free DOE". Five hundred people attended the conference with thirty-seven states represented. Dr. Carolyn Huntoon, Assistant Secretary for Environmental Management, attended and spoke at the conference. The conference was a great success. Thanks to all who participated.

FY99 Fourth Quarter AL P2 Performance

Although it is recognized that P2 accomplishments from prior quarters remain significant and are often ongoing, they generally will not be repeated in this section unless exceptional progress was made during the current reporting period. Below are some of the more significant 4th quarter accomplishments.

- Pantex recycled 7,760 pounds of hazardous solvents (hazardous mixture of either n-butyl acetate or ethyl acetate and water) from their high explosives formulation, thereby eliminating the acetate/water waste stream. In fourth quarter alone, the two associated recycling programs resulted in a disposal cost avoidance of \$25,379 and a purchase cost avoidance of \$1,162.
- Pantex made significant use reductions of Ozone Depleting Substances (ODS) during third quarter by replacing chillers that use ODS. By the end of 1st quarter FY00, Pantex will exceed the Secretary's goal of replacing all chillers greater than 150 ton capacity which use Class 1 ODS refrigerant by FY2005. The future savings from no longer having water-cooled units and electrical savings will amount to approximately \$50,000 per year.
- LANL's newly instituted recycling program for LLW-contaminated cardboard, on which progress was reported last quarter, made additional significant progress during the 4th quarter. Their 4th quarter progress resulted in an additional volume reduction of 160.69 cubic meters and savings of \$255,497, bringing the fiscal year to date volume reduction to 434.90 cubic meters and savings of \$691,490.
- LANL's decontamination of MLLW metal from various projects discussed in the previous quarterly report, made immense progress during the 4th quarter. The fiscal year total through 4th quarter is a reduction of 20.73 cubic meters and savings of \$1,554,750.
- LANL's newly instituted programs for recycling hazardous materials off-site and a site-wide lead/steel recycling program, on which progress was reported last quarter, saved close to one million dollars combined through the 4th quarter.

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New and ongoing AL P2 projects and resulting waste reductions for FY99 and for 4th quarter FY99 only are shown in the following two tables.

<i>FY99 AL Pollution Prevention Project Summary</i>							
P2 Activity Type	Waste Type	Total Projects				Total YTD Reduction^[1]	YTD \$ Savings
		New	Ongoing	Routine	Cleanup		
Programmatic	HAZ	1	0	1	0	0.00	0
	OTHER	12	0	11	1	0.00	0
TOTAL		13	0	12	1	0.00	\$0
Recycle/reuse	HAZ	3	16	17	2	262.43	2,083,168
	WW-HAZ	1	0	1	0	567.81	0
	LLW	3	1	4	0	1,082.09	1,203,305
	MLLW	1	0	1	0	0.57	42,750
	TRU	1	0	1	0	0.00	0
	SAN ^[2]	6	24	27	3	1,978.07	249,005
TOTAL		15	41	51	5	3,890.97	\$3,578,228
Segregation	LLW	2	3	1	4	1,545.67	684,843
	MLLW	3	1	0	4	27.21	1,636,387
	TRU	1	0	0	1	3.33	166,500
TOTAL		6	4	1	9	1,576.21	\$2,487,730
Source reduction	HAZ	5	4	9	0	532.53	942,921
	LLW	1	3	4	0	444.74	700,734
	MLLW	1	0	1	0	1.00	75,000
	SAN ^[2]	0	1	1	0	21.80	2,933
	WW-SAN	1	2	2	1	39,219.37	52,030
TOTAL		8	10	17	1	40,219.44	\$1,773,618
AL COMPLEX-TOTAL		42	55	81	16	45,686.62	\$7,839,576

^[1] Hazardous wastes and sanitary waste are measured in metric tons; other waste types are measured in cubic meters. Quantities indicated in this table assume that one metric ton is equivalent to one cubic meter.

^[2] Includes sanitary wastewater

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4 th Quarter FY99 AL Pollution Prevention Project Summary							
P2 Activity Type	Waste Type	Total Projects				Total YTD Reduction ^[1]	YTD \$ Savings
		New	Ongoing	Routine	Cleanup		
Programmatic	HAZ	0	0	0	0	0.00	0
	OTHER	4	0	4	0	0.00	0
TOTAL		4	0	4	0	0.00	\$0
Recycle/reuse	HAZ	2	14	14	2	118.86	1,008,262
	WW-HAZ	1	0	1	0	567.81	0
	LLW	1	0	1	0	160.69	255,497
	MLLW	1	0	1	0	0.57	42,750
	TRU	0	0	0	0	0.00	0
	SAN ^[2]	4	15	17	2	764.84	86,548
TOTAL		9	29	34	4	1,612.77	\$1,393,057
Segregation	LLW	0	3	1	2	125.60	199,704
	MLLW	0	0	0	0	18.40	1,380,000
	TRU	0	0	0	0	0.00	0
TOTAL		0	3	1	2	144.00	\$1,579,704
Source reduction	HAZ	3	2	5	0	2.21	11,048
	LLW	0	2	2	0	15.95	8,000
	MLLW	1	0	1	0	1.00	75,000
	SAN ^[2]	0	0	0	0	0.00	0
	WW-SAN	1	2	2	1	13,269.78	24,340
TOTAL		5	6	10	1	13,288.94	\$118,388
AL COMPLEX-TOTAL		18	38	49	7	15,045.71	\$3,091,149

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Individual Site Accomplishments

The first two tables below represent a roll up summary of reported site accomplishments, one for 4th quarter FY99 only and one for all of FY99. Below these two summary tables are individual site tables of FY99 accomplishments for the Albuquerque Operations Office. Additional accomplishment information is available at the EM web site, at <http://twilight.saic.com/WasteMin/MainReports.htm>.

AL Site P2 Reported Performance – FY99

Site	# of Reported Accomplishments	YTD Reductions	YTD Savings
Grand Junction Projects Office	8	479.01	\$12,100
Kansas City Plant	1	2.20	\$0
Los Alamos National Laboratory	30	3,606.65	\$5,310,845
Pantex Plant	26	40,040.74	\$1,962,903
Sandia California	0	0.00	0
Sandia New Mexico	12	1379.29	\$548,277
Waste Isolation Pilot Plant	20	178.73	\$5,451
Total	97	45,686.62	\$7,839,576

AL Site P2 Reported Performance – 4th Quarter FY99

Site	# of Reported Accomplishments	YTD Reductions	YTD Savings
Grand Junction Projects Office	2	31.41	\$1,000
Kansas City Plant	0	0	0
Los Alamos National Laboratory	20	1,576.13	\$2,608,307
Pantex Plant	18	13,359.58	\$443,679
Sandia California	0	0.00	0
Sandia New Mexico	5	24.18	\$37,575
Waste Isolation Pilot Plant	11	54.41	\$588
Total	56	15,045.71	\$3,091,149

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Grand Junction Projects Office FY99 Accomplishments

Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Recycled 3 soil moisture probes through CPN Int'l	Recycle/reuse	TRU	New	Routine	0.00	0
Found new use for rad-contaminated wastewater from treatment plant.		LLW	New	Routine	419.14	5,400
Used batteries, fluorescent lamps, light ballasts		HAZ	Ongoing	Routine	0.29	2,000
Miscellaneous recycling		SAN	Ongoing	Routine	28.05	700
Miscellaneous recycling		SAN	New	Routine	31.35	0
Used unneeded paints and cement sealer		SAN	New	Routine	.06	1,000
Activity Totals	6				478.89	\$9,100
Segregated RCRA empty containers from mixed waste stream	Segregation	MLLW	New	Cleanup	0.00	3,000
Removed RCRA component of mixed waste, thereby rendering the waste incinerable.		MLLW	New	Cleanup	.12	0
Activity Totals	2				.12	\$3,000
YTD P2 Savings/Avoidance	8				479.01	\$12,100

^[1] Hazardous wastes and sanitary waste are measured in metric tons; other waste types are measured in cubic meters. Quantities indicated in this table assume that one metric ton is equivalent to one cubic meter.

Kansas City Plant FY99 Accomplishments

Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Desisting from treating cutting fluid waste on-site	Source reduction	HAZ	New	Routine	2.20	0
YTD P2 Savings/Avoidance	1				2.20	\$0

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LANL FY99 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Solidification of radioactive liquid scintillation cocktails	Programmatic	Other	New	Routine	0.00	0
Activity Totals	1				0.00	\$0
Paint thinner recycling	Recycle/Reuse	HAZ	Ongoing	Routine	.60	4,380
High Density Z Pinch-II		HAZ	New	Routine	30.81	224,913
Site-wide off-site recycle of hazardous materials		HAZ	Ongoing	Cleanup	69.24	506,272
Site-wide lead/steel recycling		HAZ	Ongoing	Cleanup	55.92	408,188
R-25 monitoring well land application		WW-HAZ	New	Routine	567.81	0
Cardboard recycle, LLW avoidance		LLW	New	Routine	434.90	691,490
Generator set-aside fee 99 55-gallon drum recycling		LLW	Ongoing	Routine	10.05	159,795
Wood pallets from Area G		LLW	New	Routine	218.00	346,620
Contaminated refrigerant		MLLW	New	Routine	.57	42,750
Site-wide phone book recycling		SAN	Ongoing	Routine	12.56	1,690
Site-wide brush re-use @ landfill		SAN	Ongoing	Cleanup	298.91	48,240
Cardboard recycle sanitary		SAN	Ongoing	Routine	103.84	13,971
MSA1000- junk mail recycling		SAN	Ongoing	Routine	35.23	4,740
Office paper recycling		SAN	Ongoing	Routine	124.29	16,722
Site-wide construction/demo waste re-use @ landfill		SAN	Ongoing	Routine	539.86	72,634
Site-wide metal recycling		SAN	Ongoing	Cleanup	429.74	57,818
Activity Totals	16				2,932.33	\$2,600,223
GSAF 99 nitric acid recovery with MST-7	Source reduction	HAZ	New	Routine	.20	1,460
RCRA solvent usage		HAZ	New	Routine	.30	2,190
Photochemical waste reduction		HAZ	New	Routine	1.50	10,950
Plotter reduction activities		HAZ	Ongoing	Routine	.02	176
Generator set-aside fee radiological control area		LLW	Ongoing	Routine	66.64	105,957
LLW cardboard replacement		LLW	New	Routine	340.70	541,712
Material substitution with biodegradable hydraulic fluid		MLLW	New	Routine	1.00	75,000
Phone books on the web		SAN	Ongoing	Routine	21.80	2,933
Activity Totals	8				432.16	\$740,378
ESH Zone 6	Segregation	LLW	Ongoing	Cleanup	2.00	3,180
Various projects to decontaminate LLW metals		LLW	Ongoing	Cleanup	93.10	50,244
Green is clean		LLW	Ongoing	Routine	123.00	195,570
Various projects to decontaminate MLLW metal		MLLW	Ongoing	Cleanup	20.73	1,554,750
TRU characterization		TRU	New	Cleanup	3.33	166,500
Activity Totals	5				242.16	\$1,970,244
YTD P2 Savings/Avoidance	30				3,606.65	\$5,310,845

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Pantex Plant FY99 Accomplishments

Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Toxic release inventory (TRI) reporting not required	Programmatic	HAZ	New	Routine	0.00	0
Lower electricity usage due to installation of new air dryers		Other	New	Routine	0.00	0
Lower natural gas usage due to blockage of Main Steam Distribution System		Other	New	Routine	0.00	0
Lower ODS due to replacement of older chillers		Other	New	Routine	0.00	0
Activity Totals	4				0.00	\$0
Class I anti-freeze recycling	Recycle/Reuse	HAZ	Ongoing	Routine	3.91	7,991
Class I battery recycling		HAZ	Ongoing	Routine	.14	440
Class I oil recycling		HAZ	Ongoing	Routine	22.96	97,466
Class I solvent recycling		HAZ	Ongoing	Routine	2.00	9,264
Fluorescent light recycling		HAZ	Ongoing	Routine	5.63	0
Hazardous battery recycling		HAZ	Ongoing	Routine	54.15	466,405
Hazardous scrap metal recycling		HAZ	Ongoing	Routine	5.49	257,091
Routine hazardous solvents recycling		HAZ	Ongoing	Routine	1.11	14,370
Oil filter recycling		HAZ	Ongoing	Routine	1.78	3,706
Precious metals recycling		HAZ	Ongoing	Routine	1.06	8,775
Spent bullets recycling		HAZ	Ongoing	Routine	0.50	1,298
Electronic component recycling		HAZ	Ongoing	Routine	0.46	4,318
Hazardous solvents from HE recycling		HAZ	New	Routine	3.52	26,541
Destruction of classified matter using a paper disintegrator at material access areas		SAN	Ongoing	Routine	9.02	22,545
Nonhazardous scrap metal recycling		SAN	Ongoing	Cleanup	2.75	51
Nonhazardous scrap metal recycling		SAN	Ongoing	Routine	183.68	3,443
Activity Totals	16				298.16	\$923,704
Dolomite installation on Weapons and Tactics Training Facility berms	Source reduction	HAZ	Ongoing	Routine	520.30	879,350
Reducing oil changes by analyzing oil		HAZ	Ongoing	Routine	6.98	41,045
ER low-flow sampling		WW-SAN	Ongoing	Cleanup	28.08	22,280
Modifications of chlorine injection at the sewage treatment facility		WW-SAN	Ongoing	Routine	39,177.69	10,350
Activity Totals	4				39,733.05	\$953,025
Sheetrock survey/analysis during decontamination	Segregation	LLW	New	Cleanup	3.17	7,537

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Sampling analysis confirming no MLLW		MLLW	New	Cleanup	6.36	78,637
Activity Totals	2				9.53	\$86,174
YTD Savings/Avoidance	26				40,040.74	\$1,962,903

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Sandia National Laboratories/California FY99 Accomplishments

Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
						0
YTD P2 Savings/Avoidance	0		0	0	0.00	\$0

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Sandia National Laboratories/New Mexico FY99 Accomplishments

Accomplishment	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Upgrades for D&S processing for recovery and recycling precious metals	Programmatic	Other	New	Cleanup	0.00	0
Design and modification of chiller system from FY98 ROI funds		Other	New	Routine	0.00	0
Flue gas recirculators from FY98 ROI funds		Other	New	Routine	0.00	0
Lighting upgrades from ROI and GSAF funds		Other	New	Routine	0.00	0
Solvent substitution project from FY99 GSAF funds		Other	New	Routine	0.00	0
Activity Totals	5				0.00	\$0
Closed loop oil recycling from ROI funding	Recycle/Reuse	HAZ	Ongoing	Routine	2.86	39,750
Activity Totals					2.86	\$39,750
PH neutralization system from 99 GSAF funding	Source reduction	HAZ	New	Routine	.38	5,250
Purchase of bio-soy oil from GSAF funding		HAZ	Ongoing	Routine	.65	2,500
Purchase of re-usable PPE from 97 ROI funding		LLW	Ongoing	Routine	26.50	32,000
Purchase of launderable PPE from GSAF funding		LLW	Ongoing	Routine	10.90	21,065
Electronic x-ray system from 99 GSAF funding		WW-SAN	New	Routine	13.60	19,400
Activity Totals	5				52.03	\$80,215
Separation of rad contaminated soils at three ER sites	Segregation	LLW	New	Cleanup	1,324.40	428,312
Activity Totals	1				1,324.40	\$428,312
YTD Savings/Avoidance	12				1,379.29	\$548,277

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Waste Isolation Pilot Plant FY99 Accomplishments

	P2 Activity Type	Waste Type	New/Ongoing	Routine/Cleanup	YTD Reduction ^[1]	YTD \$ Savings
Sponsored "America Recycles Day" to raise awareness of need to purchase items with recycled content	Programmatic	Other	Ongoing	Routine	0.00	0
Displayed energy efficient office products during Energy Awareness month (Oct., 1998)		Other	Ongoing	Routine	0.00	0
306 items gifted to schools' math/science programs		Other	Ongoing	Routine	0.00	0
Activity Totals	3				0.00	\$0
High pressure sodium bulbs	Recycle/Reuse	SAN	New	Routine	0.00	0
Antifreeze		SAN	New	Routine	2.04	0
Stainless steel		SAN	New	Routine	0.79	257
Fire Extinguisher		SAN	New	Routine	0	0
Used batteries sold for recycling		SAN	Ongoing	Routine	8.32	610
Cardboard		SAN	Ongoing	Routine	27.20	0
Ethylene glycol		SAN	Ongoing	Routine	.13	0
Fluorescent light bulbs		SAN	Ongoing	Routine	1.32	0
Pallets		SAN	Ongoing	Routine	.21	0
Paper recycling		SAN	Ongoing	Routine	113.20	0
Plastic		SAN	Ongoing	Routine	.06	0
Premium solvent		SAN	Ongoing	Routine	.15	0
Scrap metal recycling		SAN	Ongoing	Routine	13.56	643
Donated aluminum cans to local agency		SAN	Ongoing	Routine	.10	0
Toner cartridges		SAN	Ongoing	Routine	.11	0
Unprepared steel and stainless steel sold for recycle		SAN	Ongoing	Routine	7.44	3,941
Used oil		SAN	Ongoing	Routine	4.10	0
Activity Totals	17				178.73	\$5,451
YTD P2 Savings/Avoidance	20				137.03	\$5,451

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